

ized technique for the examination. This latter method has great utility in acutely ill patients or in emergency situations. Increased relative size of the right ventricle and abnormal interventricular septum motion are observed in conditions with diastolic volume overload of the right ventricle such as atrial septal defect, anomalous pulmonary venous return and tricuspid regurgitation. End-diastolic and end-systolic left ventricular diameters measured echographically may be used to calculate total left ventricular stroke volume and ejection fraction. If there is valvular regurgitation, the difference between total ventricular stroke volume and effective or forward stroke volume measured by the Fick method gives a quantitative estimate of the degree of regurgitation. Also, echographically determined velocity of left ventricular epicardial motion has been used as an index of ventricular contraction.

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Combination Drug Therapy in Metastatic Carcinoma of the Breast

THE USE OF COMBINATIONS of cytotoxic agents in the treatment of advanced cancer has proved to be superior to single agent therapy in clinical response and survival in leukemia and lymphoma. Recently, encouraging results have been obtained in other metastatic solid tumors.

Metastatic carcinoma of the breast which is unresponsive to or has relapsed from endocrine therapy has recently been shown to be quite responsive to a five-drug combination including 5-fluorouracil, methotrexate, cyclophosphamide, vincristine and prednisone, with good to excellent responses in more than 70 percent of patients. Similar high complete response rates have been obtained with modifications of this therapy in several institutions. We have obtained good to excellent responses in 68 percent of patients treated with 5-fluorouracil, methotrexate and cyclophosphamide. Toxicity from this drug combination has been low.

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Hypothalamic Hypothyroidism

THE SIMULTANEOUS OCCURRENCE of a low thyroid hormone level and a normal or low serum level of thyroid stimulating hormone (TSH) in a patient with hypothyroidism establishes the diagnosis of secondary hypothyroidism. The administration of thyrotropin releasing hormone (TRH), which is normally synthesized and released by the hypothalamus, enables the physician to distinguish between pituitary and hypothalamic causes of hypothyroidism. TRH will normally cause the release of TSH from the pituitary gland. This will occur even in the face of an elevated TSH level in patients with primary hypothyroidism. If the thyrotroph cells of the pituitary gland are destroyed, no rise in TSH occurs. When the hypothalamus does not synthesize or release TRH, the administration of exogenous TRH will result in prompt rise of serum TSH. To date, the cases reported of pituitary hypothyroidism have been associated with pituitary tumors, hypophysectomy or postpartum necrosis of the pituitary gland. Hypothalamic hypothyroidism, on the other hand, may either be idiopathic or result from demonstrable hypothalamic disease, and it accounts for most cases previously attributed to an idiopathic pituitary TSH deficiency. The TRH stimulation test can therefore aid in more accurate localization of certain destructive processes of the central nervous system.

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Indications for Lavage in the Treatment of Bronchopulmonary Disease

SEGMENTAL LUNG LAVAGE has been attempted for many years in the treatment of a variety of pulmonary diseases. In recent years, a technique using "volume-controlled lung lavage" has been reported to be of value in certain circumstances.

With the use of a Carlens tube, one can isolate the two lungs, allowing for ventilation of one lung while lavage is being carried on in the other. Normal saline solution is used as the basic lung irrigant. Monitoring of serial arterial blood gas